

### REMARKS

This paper is responsive to a final Office action dated August 15, 2003. Claims 9-36 were examined. Previously made rejections have been maintained. Applicant has amended claim 1 and again traverses. Other minor issues are addressed as noted below.

#### *In the Specification*

Responsive to the Examiner's request, the title has been amended. In addition, a requested typographic correction has been made.

#### *In the Drawings*

Applicant respectfully notes that the Office's disapproval of the previously presented amendment to the drawings is not consistent with the Office's revision of 37 C.F.R. § 1.121. In light of revised § 121, Examiner's reliance on MPEP 608.02(v) is misplaced. The previous requirement for a red-ink, pen-and-ink sketch *has been eliminated*. See 68 Fed Reg 38611. Nonetheless, as a courtesy, a marked up copy of the previously amended drawing figure is included herewith and identified as an "Annotated Marked-up Drawing."

Applicant respectfully requests approval of the previously, and properly, submitted amended drawing replacement sheet.

#### *Claim Rejections*

Claims 9-36 are pending. All have been rejected as anticipated under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,488,729 to Vegesna et al. (*Vegesna*). Applicant has previously identified discrepancies between *Vegesna* as actually disclosed and *Vegesna* as applied by the Office. One important discrepancy is that *Vegesna* performs (for a given instruction group) decode and scheduling so that they will be completed ***within one CPU clock cycle***, not over plural execution cycles.

Upon review of the outstanding Office action, it appears that the Examiner does not dispute the distinction as presented, but rather feels that it is possible to interpret the claim language in ways that skirt the distinction. In short, the Examiner proposes that single-cycle

instruction grouping and dependency checking for a first packet of instructions (i.e., in one single cycle) and later for a second packet of instructions (i.e., in another single cycle) constitutes performing, *over plural execution cycles*, instruction grouping for dispatch, including both intra-group and inter-group dependency checking. Applicant notes that such a reading would require the construer to read the word “over” out of the claim. As a result, Applicant respectfully traverses. Nonetheless, in the interest of efficient prosecution, claim 1 has been amended to clarify that which should already be clear from the precise language of the claim, namely that grouping for dispatch (including intra- and inter-group dependency checking) of a given group of instructions is performed *over plural execution cycles*. No change in scope is intended.

Based either on a reconsidered interpretation or on the clarifying amendment, claim 1 is allowable and a notice to that effect is respectfully requested. Although other independent claims, namely claims 17, 26, 31 and 35, have been rejected by the Office in apparent reliance on the Examiner’s interpretation of claim 1 language, it is simply not possible to similarly construe language of the other independent claims. As a result, Applicant respectfully suggests that the present rejections of independent claims 17, 26, 31 and 35 would not be sustainable.

For example, independent claim 17 recites:

... to compute over plural cycles,  $T$ , of the processor a future state,  $S(t+T)$ , of the processor based on a prior state,  $S(t)$ , of the processor and based thereon to select **a group of instructions** from a program sequence thereof for dispatch to the functional units.

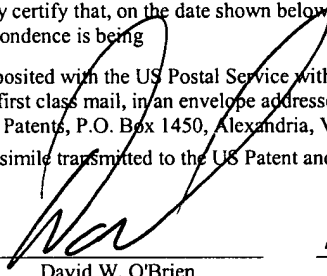
and the Examiner’s prior interpretation of other language to apply to multiple, successively performed, grouping and dependency checking operations is simply inapplicable. Accordingly claim 17 is also allowable and a notice to that effect is respectfully requested.

Though of substantially differing scope, independent claims 26, 31 and 35 also do not admit of the Examiner’s interpretation of claim 1 language, either because of a positive recital of the instruction groups for which dependency checking is performed over multiple cycles or because of a positive recital of multiple pipeline stages, as appropriate. Accordingly,

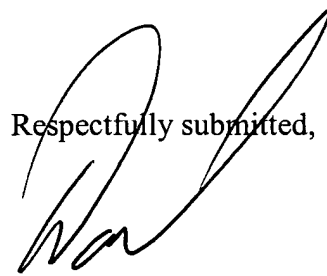
independent claims 26, 31 and 35 are also allowable and a notice to that effect is respectfully requested.

In short, all independent claims, namely claims 1, 17, 26, 31 and 35, are allowable, together with each claim dependent therefrom. Accordingly, Applicant respectfully requests a notice of allowability for all pending claims.

In summary, claims 9-36 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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 _____ David W. O'Brien	<u>10/15/03</u> _____ Date

Respectfully submitted,

  
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